000 AN IMPROVED world situation with regard to oil would benefit Roumania very greatly, for the oil industry may fairly be said to be the one industry of the country which has developed to the stage of maturity.

TRANSPORT.

489 THE TRANSPORT of the country is organised, where it is organised, from the standpoints of trade, administration and defence, but from all these standpoints re-orientation has been necessary since the acquisition of new territories, and so far achievement has only been very partial. In measuring the extent of progress the great engineering difficulties and immense cost of construction in so mountainous a country where disastrous floods are a common feature must not be forgotten.

● 487 THE OLD KINGDOM developed its lines of communication as a purely agricultural country with a grain and timber surplus for export. Its natural markets were the industrialised countries of west-central and western Europe, where grain and timber could be exchanged for manufactured goods. The Danube river seems at first sight to offer the natural line of communication to the west, but its swift current has always been an obstacle to up-stream traffic, especially before the days of high-powered river-craft, and the still greater obstacles of the Iron Gate reefs and the Klissura gorges and cataracts have always prevented the full use of the waterway. Through the gorges of the Banat, Trajan's hanging road is replaced by the fine metalled Szecheny road built by Hungarian engineers a hundred years ago, but there is no railway along the river except for the small stretch between Orşova and Turnu Severin, the marsh and lagoon and loose sand of the lower Danube valley present conditions that have from early times diverted traffic away from the almost bridgeless river. From Roman times the Cerna and Timiş valley route has been the more important western exit from the lower Danube plains. The Roman bridge at Turnu Severin gave access to the Jiu basin and the Valcan (Vulkan) pass. Both these are important railway routes to-day.

AN ALTERNATIVE to the up-stream route, and one which gives full advantage to bulk cargoes utilising the Danube, is that via the Black Sea and Mediterranean, and thus we

487 find that, in spite of the classical importance of the Danube valley as the link between the Orient and the west of Europe, the Black Sea ports drew the trade of the Lower Danube and Siret basins and established a traffic with the Mediterranean and north-western lands which increased in importance until the Great War. A two-way traffic in Danube grain and British coal gave a great advantage to British merchants and British shipping, the only other shipping engaged in the lower Danube traffic, that under the Greek flag, coming a long way behind. Partly as a result of the cessation of her Mediterranean coal trade, and partly as a result of energetic development of Greek, Italian (carrying mail) and Roumanian shipping lines (the last two subsidised), Great Britain in 1933 stood fourth on the list, being outstripped [505] by Roumania itself, which has recently purchased a couple of 8,000 ton Hamburg-America liners. Braila and Galaţi, the two grain ports of Wallachia and Moldavia (which, with a depth of 20 to 24 feet, can accommodate 6,000 ton ocean-going steamers) have up-to-date equipment, the former catering mainly for the Prut river traffic of Bessarabia and the latter for the larger Wallachian hinterland. 504 A large number of small grain ports on the Danube remain so far with but primitive equipment. Constanţa, on the Black Sea, has received most of the attention of the Government, in the form of petrol basins, pipe-lines, dredging, etc. It is, of course, a rail port and has thus the advantage over the ports of Braila and Galaţi when the Danube and Prut are frozen, as they usually are fro[m] December or January till March, or in summer when [the] water is low. Over a period of forty-seven years there were only eleven years when the rivers remained open.

THE SIRET, which debouches at Braila, is unfortunately unnavigable, and can only be used for floating timber, which is shipped in ocean-going vessels at Galaţi. The port of Sulina and the channel between that port and Braila, entirely under the administration of the European Commission of the Danube, has recently been much improved, and traffic on the Sulina arm has accordingly improved too. It is, however, feared that, in spite of the extension of the moles, the persistent silting at the Sulina outlet will render necessary the diversion of the Sulina cut to an outlet five miles to the south.

504
505

cleared without very considerable development. It is probable that not more than about 50 per cent. of the above capacity could be worked. Grain is loaded by land and floating elevators.

[502]

The ports of Brăila and Galaţi are ice-bound during some winters, ice occurring to a sufficient extent to prevent navigation from the Black Sea between January and mid-March in about 3 years in 10.

## D. INLAND WATERWAYS

### I. General

133
505
487

In 1937 navigable waterways totalled 2,840 km (1,766 miles) and were divided as follows :—

| | *Km.* | *Miles* |
|---|---|---|
| Danube .. .. .. | 1,073 | 668 |
| Danube tributaries | 395 | 246 |
| Dniester .. .. | 740 | 460 |
| Prut .. .. | 410 | 255 |
| Mureş .. .. | 185 | 115 |
| Bega Canal .. .. | 35 | 22 |

The rivers Dniester, Prut and Mureş have not been adequately regulated for regular traffic, but are used for local traffic and for timber floating.

### II. The Danube

#### 1. Traffic

487
505
439

The Danube, Rumania's main traffic artery, carried about 60 per cent. of all import tonnage and some 15 per cent. of all exports in the years immediately before the war. Traffic is of two distinct types; first, the traffic in sea-going vessels with an average size of 2,000-2,500 tons proceeding as far as Galaţi and Brăila via the Sulina mouth, and second, on the river proper, on the Danube above Galaţi.

The sea-going traffic passing through the Sulina mouth in the years just before the war consisted of about 1·2—1·4 million tons a year of exports from Rumania or other riparian states. By far the most important items were grain and timber. About half the vessels entering the Danube from the sea appear to have been in ballast; the remainder bringing in some 300,000-500,000 tons of imports mainly for Rumania.

Inland-water traffic on the Rumanian sector of the Danube in 1936 (the latest year for which information for all kinds of traffic is available) amounted to 3 million tons. 1·6 million tons consisted of upstream traffic from Rumania to other riparian states, 0·24 million tons of downstream traffic to Rumania, about 1 million tons of Rumanian internal traffic, and about 0·2 million

## CHAPTER VIII

of transit traffic (mainly downstream). Traffic with other riparian states was apportioned as follows :—

| | *From Rumania* | *To Rumania* |
|---|---|---|
| | *'000 tons* | |
| Germany .. | 220 | 40 |
| Austria .. | 390 | 20 |
| Czechoslovakia .. | 440 | 30 |
| Hungary .. | 300 | 150 |
| Yugoslavia .. | 200 | — |
| Bulgaria .. | 80 | 3 |
| | 1,630 | 243 |

The composition of inland-water traffic has been fully analysed only at the Iron Gates, at the western end of the Danube's Rumanian course. In the traffic shown below, the upstream traffic consisted mainly of Rumanian exports, while the downstream traffic was made up of imports and transit traffic in approximately equal proportions.

Traffic in '000 metric tons at the Iron Gates :—

| | 1938 | 1937 |
|---|---|---|
| | *Upstream* | |
| Total .. .. .. .. | 1,362·5 | 1,864·0 |
| of which (main items only) : | | |
| Timber .. .. .. | 20·1 | 11·9 |
| Iron .. .. .. | 21·1 | 13·4 |
| Wheat .. .. .. | 30·3 | 300·6 |
| Barley .. .. .. | 49·8 | 68·0 |
| Maize .. .. .. | 25·1 | 125·3 |
| Petroleum and its products .. .. | 787·7 | 1,040·1 |
| Salt .. .. .. | 30·8 | 31·7 |
| | *Downstream* | |
| Total .. .. .. .. | 489·3 | 771·2 |
| of which (main items only) : | | |
| Iron .. .. .. | 77·2 | 22·2 |
| Timber .. .. .. | 67·6 | 86·5 |
| Wheat .. .. .. | 74·4 | 363·0 |
| Maize and oats .. .. | 79·6 | 28·2 |

Little is known about traffic since Rumania finally joined the Axis in 1941. As a whole, it is below pre-war level as a result of a great decrease in the amount of grain coming forward. This has been partly, but certainly not entirely, counterbalanced by a slight increase in oil traffic, by the probable diversion of rail traffic to the Danube and by military traffic. The most important individual traffics at the present time are as follows :—

(*a*) Oil shipments from Giurgiu (i) upstream to Italy (50-70,000 tons a month), to Germany (possibly 30-50,000 tons a month), and (ii) downstream to German forces in South Russia (quantity unknown, but may be substantial).

(*b*) Downstream supplies of (i) coal to Rumanian railways (part only of total supply), and of (ii) military equipment, stores, etc., to South Russia (quantities unknown).

(*c*) Upstream supplies of (i) some S. Russian products, including grain (perhaps 20,000 tons a month) and possibly iron and manganese ore (quantities unknown), as well as of (ii) some small quantities of Rumanian exports of agricultural products.

### 2. Navigation

The Iron Gate Sector of the Danube between Orşova and Turnu Severin, with its rapids and reefs causing violent currents, is particularly difficult for navigation, and the use of specially